

REMARKS/ARGUMENTS

In the Final Office Action of April 10, 2009, claims 1-15 are rejected. Additionally, the drawings are objected to. In response, Applicants propose amending claims 1 and 7 to include the limitations of claim 10, which includes the limitations of claim 4. As a result, Applicants propose canceling claims 4 and 10. Applicants also propose amending claim 11 to reflect claim dependency change. Additionally, Applicants propose canceling claims 12-15.

Applicants respectfully request that the amendments be entered to put the claims in condition for allowance or to put the claims in better condition for appeal. Applicants hereby request reconsideration of the application in view of the proposed amendments and the below-provided remarks.

Objections to the Drawings

The Final Office Action states that the drawings are objected to because unlabeled rectangular boxes shown in the drawings (specifically figures 3 and 4) should be provided with descriptive text labels. The current application is a U.S. National Stage application. The labeling of figures with text matter is prohibited under PCT Rule 11.11, except when “absolutely indispensable” for understanding. Further, MPEP 1893.03(f) states that “[t]he USPTO may not impose requirements beyond those imposed by the Patent Cooperation Treaty (e.g., PCT Rule 11).”

In the present application, Applicants respectfully submit that the addition of text labels to the drawings is not absolutely indispensable because the individual drawing elements are identified and described in Applicants’ specification. In particular, the individual drawing elements of figures 3 and 4 are identified and described in Applicants’ specification at, for example, pages 9-12. Because the individual drawing elements of figures 3 and 4 are identified and described in Applicants’ specification, Applicants respectfully assert that additional text labeling is not absolutely indispensable for understanding figures 3 and 4. Thus, in view of the above rules, Applicants respectfully assert that additional text labeling is not required for figures 3 and 4. As a result, Applicants respectfully request that the objections to the drawings be withdrawn.

Claim Rejections under 35 U.S.C. 103

Claims 1-10 and 12-14 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sun et al. (U.S. Pat. Pub. No. 2004/0066773, hereinafter “Sun”) in view of Chadha et al. (U.S. Pat. Pub. No. 2004/0156309, hereinafter “Chadha”). Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sun in view of Chadha and further in view Hart et al. (U.S. Pat. No. 7,161,896, hereinafter “Hart”). In response, Applicants propose amending claims 1, 7 and 11 and canceling claims 4, 10 and 12-15. Applicants respectfully submit that the pending claims are patentable over the cited references for the reasons provided below.

Independent Claim 1

As described above, Applicants propose amending claim 1 to include the limitations of claim 10, which includes the limitations of claim 4. That is, as amended, claim 1 includes the same limitations as claim 10 in the Office Action Response filed on January 13, 2009, namely

“the filter is further configured to generate an updated channel estimate, the updated channel estimate being defined as:

$$EC = \alpha NE - (1 - \alpha)IE,$$

wherein EC is the updated channel estimate, NE is the difference signal, IE is the initial estimate, and α is a predefined value.”

Thus, amended claim 1 recites a specific filter for weighting a difference signal and an initial estimate. In particular, amended claim 1 discloses that a filter is configured to generate an updated channel estimate, which is defined as a specific combination of a difference signal, an initial estimate and a predefined value. Specifically, amended claim 1 discloses that the updated channel estimate is defined as the sum of the multiplication product of the difference signal and the predefined value and the multiplication product of the initial estimate and the result of one minus the predefined value, i.e., $EC = \alpha NE - (1 - \alpha)IE$, wherein EC is the updated channel estimate, NE is the difference signal, IE is the initial estimate, and α is a predefined value.

Applicants respectfully assert that Sun in view of Chadha does not teach the above-identified limitation of amended claim 1. In particular, Applicants respectfully assert that

Sun in view of Chadha does not teach that an updated channel estimate is defined as the sum of the multiplication product of a difference signal and a predefined value and the multiplication product of an initial estimate and the result of one minus the predefined value. Additionally, in the rejection against claim 10 in the Office Action Response filed on January 13, 2009, the Final Office Action states that the combination of Sun and Chadha “discloses the updated channel estimate is a function of the previous channel estimate and the feedback signal from the slicer as shown in figure 6 of Sun.” (See page 5 of the Final Office Action). Applicants respectfully submit that even if the combination of Sun and Chadha teaches that the updated channel estimate is a function of the previous channel estimate and the feedback signal, the combination of Sun and Chadha still does not teach the specific function of amended claim 1, i.e., $EC = \alpha NE - (1 - \alpha)IE$, wherein EC is the updated channel estimate, NE is the difference signal, IE is the initial estimate, and α is a predefined value.

Because Sun in view of Chadha does not teach the above-identified limitation of amended claim 1, Applicants respectfully assert that amended claim 1 is patentable over Sun in view of Chadha and now in the condition for allowance.

Dependent Claims 2, 3, 5, 6, 8, 9 and 11

Claims 2, 3, 5, 6, 8, 9 and 11 depend from and incorporate all of the limitations of independent claim 1. Thus, Applicants respectfully assert that claims 2, 3, 5, 6, 8, 9 and 11 are allowable at least based on an allowable claim 1.

Independent Claim 7

As described above, Applicants propose amending claim 7 to include the limitations of claims 4 and 10. As amended, claim 7 includes similar limitations to amended claim 1. Because of the similarities between claim 1 and claim 7, Applicants respectfully assert that the remarks provided above with regard to amended claim 1 apply also to amended claim 7. Thus, Applicants respectfully assert that claim 7 is patentable over Sun in view of Chadha and now in the condition for allowance.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the proposed amendments and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

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